AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims

1. **(Canceled)**

2. **(Currently Amended)** A method of promoting highly efficient antigen presentation in a mammal comprising administering to the mammal an ~~recombinant~~ antibody which binds to a human DEC-205 protein comprising SEQ ID NO:6 or a mouse DEC-205 protein comprising SEQ ID NO:3 ~~to said mammal~~, wherein ~~said~~ the antibody is linked to ~~has been genetically modified to contain~~ at least one preselected antigen and at least one dendritic cell maturation factor, each on at least one preselected site on ~~said~~ the antibody, and wherein ~~said~~ the administering results in ~~delivery of said antigen to said dendritic cell, maturation of said dendritic cell and promotion of~~ highly efficient antigen presentation.

3. **(Currently Amended)** The method of claim 2 ~~either of claims 1 or 2~~, wherein the ~~said~~ preselected site on said antibody is on the heavy or light chain of said antibody, or on fragments thereof.

4. **(Currently Amended)** The method of claim 2 ~~either of claims 1 or 2~~, wherein the ~~said~~ method results in induction of a long term cellular and/or humoral immune response in said mammal.

5. **(Currently Amended)** The method of claim 4, wherein the ~~said~~ method results in the ~~said~~ antigen being about 500 times more effective in inducing a long-lasting T cell response and in expanding antigen-specific CD4+ and CD8+ T cells in the mammal, as compared to an antigen administered without an anti-DEC-205 antibody and without a dendritic cell maturation factor.

6. **(Currently Amended)** The method of claim 4, wherein the ~~said~~ method increases the efficiency with which the antigen initiates CD4+ and CD8+ immunity from the polyclonal naive T cell repertoire in vivo.

7. **(Currently Amended)** The method of claim 2 ~~either of claims 1 or 2~~, wherein the ~~said~~ anti-DEC-205 antibody is a polyclonal or a monoclonal antibody.

8. **(Currently Amended)** The method of claim 7, wherein the ~~said~~ antibody is selected from the group consisting of a human antibody, a murine antibody that reacts with human DEC-205 protein, a humanized antibody, and a human-chimerized antibody.

9. **(Currently Amended)** The method of claim 8, wherein the ~~said~~ antibody is a monovalent or single chain antibody.

10. **(Original)** The method of claim 5, wherein the T cell response is selected from the group consisting of a cytolytic T cell response, a helper T cell response and a memory T cell response.

11. **(Currently Amended)** The method of claim 2 ~~either of claims 1 or 2~~, wherein the ~~said~~ method results in priming of CD8+ T cells specific for the preselected antigen, and wherein the ~~said~~ preselected antigen is a non-replicating and/or subunit vaccine.

12. **(Currently Amended)** The method of claim 11, wherein the ~~said~~ vaccine is composed of antigens selected from the group consisting of a tumor vaccine, a viral vaccine, a bacterial vaccine and vaccines for other pathogenic organisms for which a long lasting immune response is necessary to provide long term protection from infection or disease.

13. **(Canceled)**

14. **(Currently Amended)** The method of claim 11, wherein the ~~said~~ vaccine is administered as a single dose.

15. **(Currently Amended)** The method of claim 14, wherein the ~~said~~ single dose is sufficient to elicit a long lasting immune response.

16. **(Currently Amended)** The method of claim 14, wherein the ~~said~~ vaccine is effective when administered without adjuvant.

17. **(Currently Amended)** The method of claim 14, wherein the ~~said~~ single dose of vaccine, when administered at levels of about 10 to 1000 fold lower than the level of a vaccine administered without an anti-DEC 205 antibody and without a dendritic cell maturation factor but with an adjuvant, results in highly efficient antigen presentation and induction of long lasting immune responses.

18. **(Currently Amended)** The method of claim 14, wherein the ~~said~~ vaccine is administered at a single dose of about 1 mg to about 10 mg.

19. **(Currently Amended)** The method of claim 14, wherein the ~~said~~ vaccine is administered at a single dose of about 1 μg to about 10 μg.

20. **(Currently Amended)** The method of claim 14, wherein the ~~said~~ vaccine is administered at a single dose of about 10 ng to about 100 ng.

21. **(Currently Amended)** The method of claim 11, wherein the ~~said~~ vaccine is administered subcutaneously, intramuscularly, intravenously, intranasally, orally, mucosally, bucally or sublingually.

22. **(Currently Amended)** The method of claim 17, wherein the ~~said~~ immune response is a cellular or humoral immune response.

23. **(Currently Amended)** The method of claim 22, wherein the ~~said~~ cellular immune response is selected from the group consisting of a cytolytic T cell response, a helper T cell response and a memory T cell response.

24. **(Currently Amended)** A method for increasing the persistence of MHC class I: antigen complexes in a mammal comprising~~:~~ administering to the mammal an antibody which binds to a human DEC-205 protein comprising SEQ ID NO:6 or a mouse DEC-205 protein comprising SEQ ID NO:3, wherein the antibody is linked to least one preselected antigen and at least one dendritic cell maturation factor, each on at least one preselected site on the antibody.

~~a) exposing ex-vivo or in-vivo dendritic cells from said mammal to either of the following:~~

~~i) a conjugate comprising a preselected antigen covalently bound to an antibody which binds to human DEC-205 or mouse DEC-205; or~~

~~i) a recombinant antibody which binds to human DEC-205 or mouse DEC-205, wherein said antibody has been genetically modified to contain at least one preselected antigen on at least one preselected site on said antibody molecule; and~~

~~b) promoting maturation of said dendritic cells ex-vivo or in-vivo by combining the antigen/anti-DEC-205 complex of either of i) or ii) of step a) with a dendritic cell maturation factor;~~

~~wherein the combination of steps a) and b) results in persistent presentation of antigen in the context of MHC class I antigens such that persistence of MHC class I: antigen complexes in said mammal results in induction of a long-lasting T-cell response specific for said antigen; and wherein such persistent presentation of antigen is analogous to a systemic infection as evidenced by presentation of antigen in most lymphoid tissue.~~

25. **(Currently Amended)** The method of claim 24 wherein the ~~said~~ MHC class I: antigen complexes persist in vivo in multiple lymphoid sites from about 15 to about 30 days.

26. **(Currently Amended)** The method of claim 2 ~~either of claims 1 or 2~~, wherein the ~~said~~ method results in induction of mucosal immunity specific for said ~~predetermined~~ antigen.

27. **(Currently Amended)** The method of claim 12, wherein treatment of a mammal with the ~~said~~ tumor vaccine results in tumor regression in vivo.

28. **(Currently Amended)** The method of claim 27, wherein the ~~said~~ tumor regression is associated with an increase in a tumor specific CD8+ cytolytic T cell response.

29-54. **(Canceled)**

55. **(Previously Presented)** The method of claim 24, wherein the method results in priming of CD8+ T cells specific for the antigen, wherein the antigen is a non-replicating antigen or a subunit vaccine.

56. **(Previously Presented)** The method of claim 55, wherein the non-replicating antigen is selected from the group consisting of a bacterium, a virus, a tumor cell and any other pathogenic organism for which long term immunity and protection from disease is desired.

57-59. **(Canceled)**

60. **(New)** A method of promoting highly efficient antigen presentation in a mammal comprising administering to the mammal a conjugate comprising a subunit vaccine linked to an antibody which binds to a human DEC-205 protein comprising SEQ ID NO:6 or a mouse DEC-205 protein comprising SEQ ID NO:3, and at least one dendritic cell maturation factor, wherein the administration results in persistent presentation of antigen in the context of MHC class I antigens, such that persistence of MHC class I: antigen complexes in said mammal results in induction of a long lasting T cell response specific for said antigen.

61. **(New)** The method of claim 60, wherein the subunit vaccine is selected from the group consisting of a bacterium, a virus and a tumor antigen.

62. **(New)** The method of claim 61, wherein the virus is selected from the group consisting of HIV-1, HPV, EBV, HSV, influenza virus and SARS virus.

63. **(New)** The method of claim 60 or 61,wherein the method results in priming of CD8+ T cells specific for the subunit vaccine.

64. **(New)** The method of claim 2, 24 or 60 wherein the dendritic cell maturation factor is selected from the group consisting of an anti-CD40 antibody, an inflammatory cytokine, poly I/C, single strand RNA, DNA, CpG, ligation of IL-1 receptor, ligation of TNF receptor, ligation of TOLL-like receptors, activation of TRAF-6, and activation of NF-κ.

65. **(New)** The method of claim 24, wherein the administration results in persistent presentation of antigen in the context of MHC class I antigens such that persistence of MHC class I: antigen complexes in said mammal results in induction of a long lasting T cell response specific for said antigen; and wherein such persistent presentation of antigen is analogous to a systemic infection as evidenced by presentation of antigen in most lymphoid tissue.